

Boulder County's SUSTAINABILITY FRAMEWORK & INVENTORY

**Leading towards an
INTEGRATED SUSTAINABILITY PLAN (ISP)**

April 15 – Oct 15, 2011



ENVIRONMENTAL INTEGRITY • ECONOMIC VITALITY • SOCIAL EQUITY

S U S T A I N A B I L I T Y

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1. INTRODUCTION & PURPOSE

I. Intent of The Sustainability Framework & Inventory – Towards an ISP

This document serves to outline Boulder County's historical and current Sustainability structure, programs, services, policies and commitments.

In combination with Sharon McClew's 2010 "*Report on Organization Issues Related to Boulder County's Sustainability Program*" which outlined our strengths and weaknesses, along with James Wood's 2011 Research on "*Sustainability Planning – Best Practices*", the EO/DH can begin to implement the creation of an Integrated Sustainability Plan (ISP).

Creating an Integrated Sustainability Plan (ISP) is important, because Boulder County is facing increasingly complex challenges related to regional growth, economic development and environmental stewardship. These challenges also present opportunities: by outlining the County's Sustainability achievements to date in this Inventory, we can acknowledge our successes, note our strengths and weaknesses, and take advantage of the environmental, social and economic opportunities to provide our citizens and residents with programs and services that enhance their quality of life, as the way we provide Public Service.

Through this multi-stakeholder ISP collaborative effort, we can achieve the county's Sustainability goal of making Boulder County a clear model for others – increasing our impact.

2. EARLY ACTIONS TO SUPPORT SUSTAINABILITY

I. Sustainability Task Force

Boulder County's commitment to a focus on sustainability in its operations and mission formally began in 2005 with the creation of the Sustainability Task Force. The County's lead for operations convened representatives from across the County Departments to discuss sustainability, with an emphasis on environmental sustainability, and how it could be integrated throughout our operations. From this meeting, six subcommittees were formed to explore the main areas of environmental impact as well as develop the necessary infrastructure.

Areas of Environmental Sustainability Emphasis

- Buildings and Energy Subcommittee
- Purchasing and Zero Waste Subcommittee
- Transportation Subcommittee

Infrastructure Development

- Education and Incentives Subcommittee
- Public Policy Subcommittee
- Budget Subcommittee

The Subcommittees were headed primarily by staff representing key Departments and Divisions such as Architects, Land Use, Public Health, Purchasing, Resource Conservation, and the Commissioner's Office. An Executive Committee was comprised of the chairs of each subcommittee. The early efforts of the subcommittees were to develop goals and mission statements to identify and focus on key objectives. The committees also identified the resources that they felt were necessary to fully support the incorporation of environmental sustainability practices countywide.

II. Commissioners' Resolutions

The Public Policy Subcommittee joined with the Energy and Buildings and Zero Waste and Purchasing Subcommittees to draft two resolutions supporting the two key environmental challenges identified in the county: energy efficiency and zero waste. The resolutions called for the creation of detailed strategies to guide the county's internal and external countywide efforts to address these critical environmental sustainability challenges.

On November 22, 2005, the Boulder County Commissioners adopted:

- ✓ **Energy Resolution: 2005-137:** "Adopting a Sustainable Energy Path for Boulder County"
- ✓ **Zero Waste Resolution: 2005-138:** "Adopting Zero Waste as a Guiding Principle and Supporting the Creation of a Zero Waste Plan."

The work of these three subcommittees, supported by the Transportation subcommittee, focused on developing the detailed plans called for by the resolution. Public Health led the development of the Sustainable Energy Plan called for by Energy Resolution 2005-137 and Resource Conservation, later supported by the Commissioner's Office, led the development of the Zero Waste Plan.

III. A Dedicated Funding Source

One of the early recommendations of the Executive Committee, comprised of the chairs of the six subcommittees, was to create a dedicated funding source for sustainability efforts. The Executive Committee reasoned that without funding specifically earmarked for sustainability it would be difficult to obtain and direct the resources necessary to identify, implement, and staff the many initiatives that would be required to both plan for and make meaningful progress on the key environmental sustainability objectives.

In 2005, Boulder County Voters approved ballot initiative 1A, permanently exempting the county tax revenues from the TABOR revenue limits, while maintaining the requirement of voter approval for any increase in the underlying tax rates. Included in the referendum was a commitment to dedicating a percentage of the funding to support the energy efficiency and zero waste sustainability initiatives. The adopted ballot issue directed 6.77% of the retained property taxes to sustainability for five years.

The Executive Committee – expanded to include representation from all Departments – worked with the Budget office to develop recommendations for the allocation of these funds to sustainability projects identified countywide from 2006 – 2010. Approximately \$6 million (check with Budget Office for actual amount) was dedicated to both internal energy efficiency and zero waste retrofits and programming as well as external program development and outreach.

IV. Sustainability Coordinator

The Executive Sustainability Committee also recommended in 2005 the creation of a new staff position to coordinate and help manage the sustainability initiative. The Executive Committee recognized that a Sustainability Coordinator would be needed to:

- Provide a centralized point of contact for ensuring the continued momentum of the sustainability initiative.
- Grow the sustainability initiative beyond the key environmental areas identified through the initial committee resolutions.
- Represent the priorities of the commissioner's office, support outreach to communities across Boulder County to ensure countywide progress, enable departments to raise issues to county leadership including recommendations on the allocation of the Sustainability Fund.

With the recommendation of a hiring panel including members of the Executive Sustainability Committee, Ann Livingston was hired as the first County Sustainability Coordinator in 2005 (could be 2006?). In 2009 a Sustainability planner was hired, and in 2010 an Education & Outreach staff was added. See diagram below.

V. Building a Sustainable Energy Plan

Two key elements of the Energy Resolution (2005-137) are the County's commitment to reduce greenhouse gas emissions to target levels specified by the Kyoto Protocol (1990 levels by 2012) and a commitment to draft a plan to achieve those goals for county operations and countywide emissions.

In 2005, Boulder County joined more than 200 cities in the United States in making a commitment to address global change at the local level

Boulder County Public Health played a lead role in the creation of the Sustainable Energy Plan for Boulder County due to the energy efficiency expertise of the Environmental Health staff, that has worked with businesses and communities for the past 20 years to improve energy efficiency and PH's role in social mobilization to support behavior change on a wide array of topics. Supported with funding from the Sustainability Fund, PH secured and provided contract support to provide important background information including an inventory of the sources of greenhouse gas emissions, an analysis of the impact of different mitigation approaches, and an analysis of individual plan recommendations to assess the impact they would have on countywide greenhouse gas emissions.

Public Health began with a Greenhouse Gas Inventory to assess current and historical sources of emissions and identify how much emission reduction would be necessary to meet the Kyoto Protocol target requiring the reduction of greenhouse gas emissions 70% below 1990 levels by the year 2012.

The Greenhouse Gas Mitigation Report analyzes what effort would be needed to meet the Commissioners' goal of a 7% reduction below 1990 levels by 2012. The analysis informs us that achieving this goal will be a significant challenge.

In April 2008, the Boulder County Sustainable Energy Plan was finalized as a joint effort of the Building and Energy and Public Policy Subcommittee with the main authorship being conducted by Boulder County Public Health. The countywide SEP that provides specific, long- and short-term strategies to reduce greenhouse gas creation across Boulder County communities. The Boulder County Commissioners approved adoption of the plan in January 2008, and soon after, the Consortium of Cities. With the support of the leadership of the Sustainability Coordinator and support of the PH Air Quality and Business Sustainability Coordinator, the plan was presented to all of the city and town council's in Boulder County and adopted by all.

VI. Zero Waste or Darn Near

A key element of Zero Waste Resolution 2005-138 is that it set a goal of zero waste. The resolution adopted "zero waste" as the guiding principle for all internal and countywide waste minimization and management strategies. These principles include managing resources instead of waste; conserving natural resources through waste prevention and recycling; turning discarded resources into jobs and new products instead of trash; promoting products and materials that are durable and recyclable; and discouraging products and materials that can only become trash after their use.

The resolution also called for the creation of a plan to systematically guide these efforts. Began by the Resource Conservation Division and completed by the Commissioner's Office of Sustainability, in December 2010, a **Zero Waste Resolution** adopting a **Zero Waste Action Plan** was passed outlining immediate, mid-term, and long term plans to achieve the goals of the 2005 resolution.

As with the Sustainable Energy Plan key research was conducted to support its creation & adoption:

- 2009 Construction and Demolition Waste Study
- 2010 Waste Composition Study

An internal Zero Waste Pilot was conducted in 2007 to promote resource conservation, composting and waste reduction. As a result of the success of the pilot, all county offices are now equipped with recycling bins, and most also have composting bins for food scraps and other biodegradable materials, while also recycling their electronic wastes, and recycle or responsibly dispose of any hazardous wastes generated.

Employees are educated about and encouraged to purchase materials that can be replaced or removed from the solid-waste stream - items such as compostable eating utensils, 100% recyclable paper as well as used furniture and office supplies. All paper purchased at the County is 100% post-consumer recycled content - purchase orders that do not meet this standard are automatically switched to do so.

VII. County's Purchasing Policy

The County's [purchasing policy](#) requires all bidders and vendors to meet a number of "Zero-Waste" standards in order to qualify for County contracts and purchases.

VIII. Progress Made

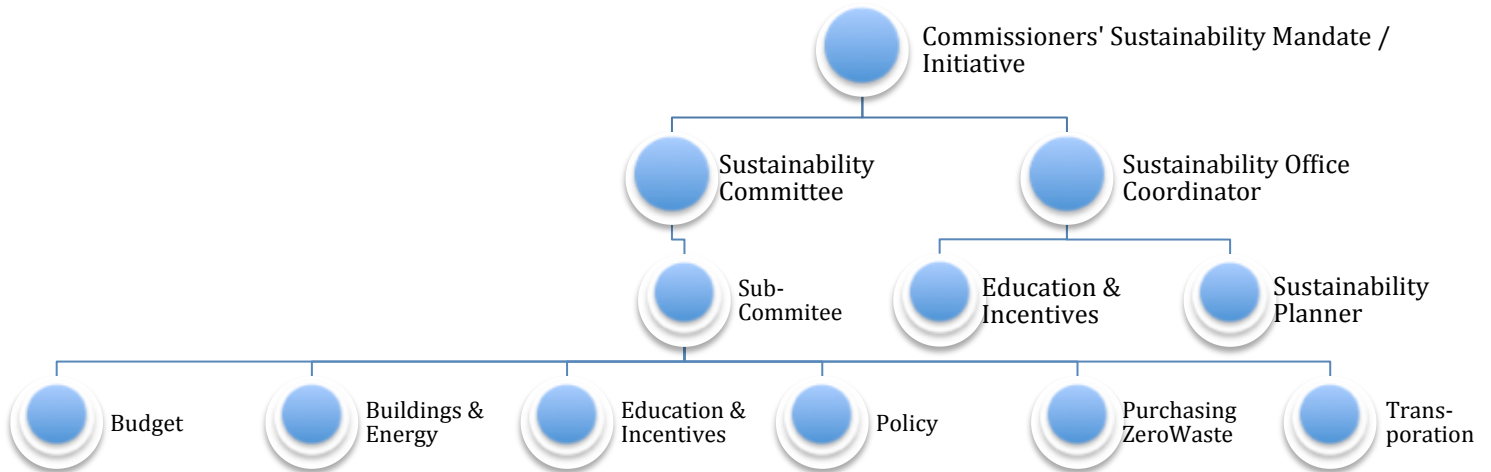
Much has been accomplished since 2005 when the first Sustainability Meeting was held and the Sustainability Subcommittees were formed:

1. A dedicated funding source was identified for 5 years and used to:
 - a. Conduct necessary research and establish baselines in energy efficiency and zero waste
 - b. Hire a Sustainability Coordinator and two Sustainability Staff members (focusing on Education, Zero Waste Policy, and grant writing) were hired.
 - c. Fill positions across Boulder County to support use of alternative modes of transportation in the Transportation Department; energy efficiency outreach in Public Health; and internal energy efficiency projects and tracking in the Facilities Management Division.
2. Attract Federal funding from the Department of Energy (DOE) for energy efficiency and US Department of Agriculture (USDA) for zerowaste. The \$12 million of DOE funding is now dramatically leveraging the county's investment supporting the energy efficiency efforts including education, rebate funding and financial incentives, contractor training and support for green job creation, and social mobilization advertising and education events across Boulder County.
3. The county just opened the Hazardous Materials Management Facility dramatically improving our hazardous materials management capability. The service will soon expand to accept hazardous materials from small businesses.

3. INTERNAL STRUCTURE & ENGAGEMENT

I. Sustainability Committee

As indicated above, in order to create the environmental Sustainability plans, the County created six subcommittees and an executive committee, comprised of the chairs of each committee. Department heads and elected officials were later asked to join the executive committee to comprise full representation on an expanded Sustainability Committee, which was supported by the Sustainability Office.



The Sustainability Committee had met on the 3rd Monday of every month. Participants included a representative from most departments.

II. Sustainability Sub-Committees

The purpose of the Sustainability Sub-Committees was to design and develop the sustainability resolutions and plans, begin the internal education process and create an external website, and focus on the key areas of environmental sustainability outlined in the goals and mission statements of the subcommittees in 2005. As indicated, much progress has been made since the formation of the subcommittees. Due to staff turnover and changes in priority many of the committees are no longer active:

1) **Budget**

Helps determine process and priorities for budget allocations to sustainability-related programs and projects. This committee was particularly active in overseeing and disseminating the dedicated funding established by resolution 1A.

Subcommittee Chair: Margaret Parish

2) **Buildings & Energy**

Prioritizes, plans and helps implement projects and programs that improve energy efficiency of County buildings and operations. This committee has been active sharing success and lessons learned and in creating two internal county greenhouse gas inventories (2008 & 2010).

Subcommittee Chairs: Wayne Kuhn (recently retired) and Pam Milmoie

3) **Education & Incentives**

Plans and implements internal outreach and education efforts. This subcommittee was

very active in creating two countywide sustainability fairs and the internal Sustainability website and the external sustainability web pages.

Subcommittee Chair: Patricia Demchak (left the county in about 2010); James Wood (current Sustainability Office staff)

4) **Policy**

Coordinates among subcommittees to advise Board of Commissioners on official policies that will support sustainability. This subcommittee was particularly active in the development of energy efficiency and zerowaste resolutions. It has been combined to meet with the Buildings and Energy Subcommittee in about 2010.

Subcommittee Chairs: Pam Milmoe and Dale Case

5) **Green Purchasing & Zero Waste**

Establishes programs and practices that increase use of recycled materials, reduce total use of materials and enable recycling and composting, with an ultimate goal of reaching zero waste.

Subcommittee Chairs: Jenny Olberding and Hillary Collins

6) **Transportation**

Supports and enhances the Transportation Department's efforts to encourage alternative transit, investigate alternative fuels, improve vehicle efficiency, reduce vehicle miles traveled and reduce pollution. This subcommittee was focused on internal department efforts and helped to support the Transportation elements of the Sustainable Energy Plan. Its functions were internalized with the hiring of George Gerstle as the Transportation Department head.

Subcommittee Chairs: Tim Swope (moved to another position) and Fred Gellman (left Boulder County in 2009)

III. Sustainability Theme / Focus Areas

The Sustainability Theme or Focus areas were chosen to in order to outreach and educate to the county as a whole:

- 1) **Energy and Climate** aims to conserve and use renewable energy sources by assisting the entire community to work towards energy efficiency and renewable energy use.
- 2) **Green Building and Planning** minimizes negative impacts and fosters building practices that improve environmental quality through the Comprehensive Plan, Land Use Code and BuildSmart Program.
- 3) **Pollution Prevention** protects our Air, Land, and Water, which is essential for our health, scenic vistas, ecosystems and the global climate.
- 4) **Transportation** is improving alternative options (ie: new bicycle facilities, improved trails, fuel-efficient vehicles & better transit services) to reduce traffic congestion, improve health, and decrease reliance on non-renewable resources.
- 5) **Zero Waste** is a resource management strategy that eliminates waste as much as possible by cautious purchasing and returning recyclables to the market place, and composting. The county aims to be a Zero Waste community - or darn near - by 2025.

Further descriptions of these areas can be found on the County's Sustainability page:

www.bouldercounty.org/sustain/initiative/pages/sustainability.aspx

4. DEFINING SUSTAINABILITY

I. Boulder County's Sustainability Mission Statement

“To ensure that Boulder County's operations and decision-making processes reflect our deep commitment to sustainability and to build partnerships to help make the broader community more sustainable.”

<http://collaboration/sites/initiatives/sus/Pages/default.aspx>

In this definition, created by the Education and Incentive Sustainability Subcommittee, Sustainability describes the goal of establishing and maintaining (sustaining) the long-term well-being of the environment, the economy and social equity.

II. The Commissioners' Sustainability Initiative

One of the three initiatives created by the county commissioners') reflects the focus of the County Sustainability initiative on environmental sustainability:

“To implement environmentally sustainable operations and policies in county government and to foster sustainable practices in the wider community.”

www.bouldercounty.org/government/offices/pages/cominitiatives.aspx

III. Triple Bottom Line

In addition, the first County Sustainability Coordinator brought to the County an emphasis on broadening the definition of Sustainability to include Economic and Social Sustainability as described on the current external Sustainability website.

“Boulder County understands that Sustainability is a long-term goal that seeks to balance Environmental, Economic and Societal needs. ...The concept of Sustainability is often referred to as 'Triple Bottom Line' (TBL) accounting which aims to protect Environmental Integrity while enabling Economic Vitality and ensuring Social Equity for ourselves today and for the future.”

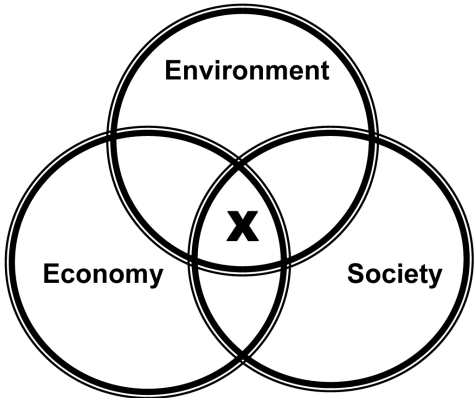
BoulderCountySustainability.org

IV. 2007 Sustainability Element

In 2007, the Sustainability Element, within the Land Use Plan defined sustainability as:

“Sustainability links the issues of environment, economy and social equity together. An action or decision in any one of these areas will have consequences on the others whether anticipated or not. A sustainable community is one where an agreement has been reached on the design and implementation of plans that replace competition between issues with collaboration and forethought about achieving desired outcomes in the present while preserving options for those that will follow...Refining the Plan to move beyond its roots in preservation to sustainability is an appropriate and important evolutionary step to take. As a specific example, the Boulder County Commissioners set the stage for this next step by adopting two resolutions directing the county's own operations to prepare and implement plans for achieving a Zero Waste Program and Sustainability Energy Path...How to go about reaching some broader consensus or acceptance of what to do and how to do it is the primary challenge that confronts us...”

The Sustainability Element added the classic basic diagram that is easy to understand and bring forward the idea of Triple Bottom Line (There is no 4th leg for “Culture”, although the “Society” circle usually covers “Culture” & “Social”).



“The X position is a simple illustration of where a sustainable community would be functioning in a balanced system.”
- Sustainability Element (2007)

5. SUSTAINABILITY INVENTORY (PROGRAMS & SERVICES – By Department)

I. Land Use

Sustainability Introduction and revisions needed by LU...

The original Boulder County Comprehensive Plan was adopted in 1978 in response to a growing alarm about the spread of development types and patterns that were having adverse, undesirable or irreversible negative impacts on the land. At its core, the Plan's intent was to provide guidance for:

- a) preserving the agricultural, forested and open lands environments and ecosystems found throughout the county by channeling urban development into and adjacent to urban areas;
- b) establishing and retaining diverse, compatible and functional land uses to prevent urban and rural decay.

Subsequent amendments and actions across the years have been developed with these goals in mind, and the county, with the persistent participation and support of its residents, has been quite successful in meeting them.

On October 30, 2006, the Planning Commission and County Commissioners held a joint study session with the Land Use Department on sustainability and directed staff to focus first on (a) an expanded transferable development rights (TDR) program; (b) assessing possible structure size limitations and mitigating measures that would be appropriate for exceeding them; and (c) developing green building policies to shape the drafting of new codes and regulations. The formal authorization to proceed with these tasks was given with the adoption of Docket BCCP-06-001: Boulder County Comprehensive Plan Revision by the Planning Commission on November 15, 2006. What follows is a brief explanation of how these three themes relate to sustainability.

TDRs and Sustainability

The county has had a voluntary TDR program and regulations in place for the Plains area since 1995. In simple terms, TDRs permit the moving of development rights from lands identified as valuable or important for preservation to other sites that are more suitable for development. Since 1995 approximately 293 TDR certificates have been issued and more than 5,000 acres of agricultural and other important lands have been preserved from development. These lands will remain available for agricultural uses, wildlife habitat, wetlands/riparian corridor protection, open space and other functions that are complementary to the principles and goals of sustainability. Its voluntary nature also means that landowners who own property eligible for the removal of the development rights have a choice in deciding how their lands will be used.

Expanding a TDR program to include a larger geographical area of the county and a greater range of TDR options can promote additional sustainability decisions and outcomes being taken in a region and for a population that has not had those choices before.

Structure Size and Sustainability

The national average for single-family home sizes has increased from 983 square feet in 1950 to 2,434 square feet in 2005. In unincorporated Boulder County new single-family home sizes have gone from an average of 3,881 square feet in 1990 to 5,929 square feet in 2005, far exceeding the comparable national figures. Yet the average household size population in the county has declined during that same period.

The residential sector accounts for 22% of the energy and 74% of the water consumed in the United States while contributing 21% of the county's carbon dioxide emissions. An "average" size home contains 892 million Btu's of embedded energy (equal to 7,800+ gallons of gasoline) in its materials' manufacturing, transportation and assembly. Not only has the growth in home sizes increased the use

of energy and other natural resources, the impacts of these larger structures can negatively affect the rural character of Boulder County. In some areas, smaller cabins and dwellings are being replaced by permanent homes of a substantially larger size. Many residents of the county have an interest in the sustainability of their rural communities' character but find it difficult to do so faced with the high cost of property and the pressure to develop larger homes.

A set of policies that encourages smaller structure sizes promotes the development of mitigation measures to offset the consumptive impacts of larger homes, discourages the demolition of otherwise habitable dwellings, and promotes the preservation of rural communities with their typically smaller homes, will enable the county to meet many sustainability objectives.

Green Building (Boulder County BuildSmart) and Sustainability

Buildings use over 25% of the world's wood harvest and consume two-fifths of all energy and materials. In addition, 54% of the energy consumption in the United States is directly or indirectly related to buildings and their construction. The average American family produces about 100,000 pounds of carbon dioxide emissions per year and spends about \$1,500 on home energy bills. However, the average green building consumes 30% less energy, which means lower costs, lower emissions and better air quality

Policies promoting the use of green building principles and practices including the preservation of existing structures where feasible, the reuse and recycling of materials from deconstructed buildings that have outlived their habitability, water and energy conservation, and the use of sustainable materials can reduce overall initial consumption of resources as well as introduce significant resource/financial efficiencies and savings into the operation, maintenance and lifetime usability of structures.

II. Public Health

Public Health's mission has long been to protect, promote, and enhance the health and well-being of all people and the environment in Boulder County. This mission is very consistent with the sustainability initiative in all of its implications: environmental, social and economic.

Social and Economic sustainability is actively supported through Public Health's diverse array of Family and Community Health Division programming including:

- Women, Infants and Children (WIC) – Help ensure that families living in poverty have access to prenatal and nutrition services that improve pregnancy outcomes and support optimal childhood growth and development. These services are offered from pregnancy through five years of age.
- Nurse Family Partnership (NFP) – Helps improve perinatal outcomes; improve health, growth, and development of children; and promote maternal likef course development for first-time mothers with low income. Specially trained registered nurses visit these women in their homes through the child's second birthday.
- Community Infant Program (CIP) – This is a nurse moe visit program that helps prevent child abuse/neglect of infants in families with identified psychosocial risks factors by promoting a healthy parent infant attachment, supporting optimal growth and development of their infants, and strengthening family coping capacities by addressing their complex psychological and social needs.
- Children with Special Needs (CSN) – Provides assistance to families that have children with special medical or developmental needs. The program focuses on a life skills progression model to ensure families can develop skills that improve their home environment to be as nurturing as possible and improve the development of a child that has a special need.
- Child Health Promotion – Helps ensure that child care can be provided in a safe and

encouraging environment. This program helps provide skills to staff at child care centers to improve the early education and nutrition, while ensuring the care center is free of environmental and safety hazards. The program also helps to provide early screening opportunities to detect developmental, hearing, or oral health needs as well as referral to services.

- GENESIS – Helps ensure prenatal services are accessible for pregnant teens and promotes healthy behaviors in the pregnant and parenting teen population, optimally impacting these families for generations to come. Additionally, the program helps provide social support through parent educators, including encouraging ongoing education, skill development, and even certain nutritional information to prevent childhood obesity.
- GENESISTER – Provides social support for teens at high risk for teen pregnancy. Services help foster interaction among other teens in optimizing a healthy future for themselves by preventing teen pregnancy.
- Prevention and Intervention Partnership – provides health education to improve or maintain healthy/protective behaviors among adolescents. Additionally, the partnership helps provide brief interventions as necessary and referrals for ongoing treatment to improve mental health conditions.
- Alcohol Diversion – promotes resiliency and coping mechanisms, as well as early intervention for teens and young adults that have received tickets for being in possession of alcohol.
- Tobacco Education and Prevention Partnership (TEPP) - Reduces tobacco-related morbidity and mortality through health promotion and policy change strategies in Boulder County.
- OASOS – Develops a social support system for gay teens and provides ongoing educational services promoting healthy/protective behaviors among this population. Additionally, this program helps to improve local capacity within the community to provide culturally appropriate services to this population.

Environmental sustainability is actively supported through PH's Environmental Health Division including:

- *Air Quality and Business Sustainability Program*: supporting air quality through implementation of air quality regulations and advocacy of protective air quality regulations to ensure the county achieves compliance with national health standards. The award winning Business Sustainability efforts include the 20 year old Partner's for A Clean Environment Program, certifying more than 300 businesses in environmental achievement and sustainability, the design and primary authorship of the county Sustainable Energy Plan, active participation in the drafting of the successful \$25 million Better Buildings grant, and co-leadership in the design and implementation of the commercial programming (approximately \$7million) of the funds, an additional annual budget of approximately \$350,000 of energy efficiency, zero waste, and water conservation funding supported by partnerships with communities across Boulder County. The Business Sustainability staff were the primary authors of the county sustainability web pages, overseers of the GHG inventory and mitigation analyses noted earlier, supporters of GHG and energy efficiency analyses and inventories for all other county departments.
- *Water Quality Program*: Supports the sustainable use of onsite wastewater treatment and groundwater for domestic use systems. These systems support the economic well-being of the rural and mountain communities of Boulder County that have long depended upon them. The program also supports the Stormwater Protection program ensuring the quality of runoff water from storm events. This is particularly important to maintain water quality during low flow seasons and drought events when dilution of incoming waters from storm events is at a minimum.
- *Consumer Protection Programs (Food Safety and Vector)*: Supports locally produced food and ensures that it is provided in a healthy and safe manner by overseeing farmers markets and

other venues for providing locally produced products. Links retail food establishments to resources to promote energy efficiency, water efficiency, waste reduction, and use of more environmentally friendly cleaning products. Develop partnerships with retail food operations to ensure the active management of food borne illness risks. Responds to changing public health impacts from diseases carried by animals. Ensures outdoor recreation is not adversely impacted by animal and insect related diseases. Maintains the public health and well-being to prevent and respond to disease outbreaks such as West Nile Virus, plague where it can spread to pets and humans, and now terrestrial rabies. Climate change is expected to adversely impact the spread of vector-borne diseases and introduce new diseases such as malaria and dengue fever.

- *Environmental Health Planner:* Active member of the Climate Adaptation Committee representing the impacts of climate change on water quality and availability, air quality impacts due to increased need for cooling energy demand and fossil fuel generated emissions, public health impacts due to increased heat and vectors.

III. Transportation

As the county has experienced significant changes in demographics and travel patterns in the past generations, the world has likewise experienced changes. Boulder County, along with many others, has developed a greater awareness of the impacts individual and collective actions have on the world and local environments. Safe and efficient travel is necessary to participate in life's activities. Yet, from an economic, social, and environmental perspective, peoples' travel needs can no longer be met by roads and cars alone. New ways of providing safe, reliable, and convenient travel options that will be available to both current and future generations are necessary.

Implementation of the Boulder County transportation system must be consistent not only with this element of the Comprehensive Plan, but also with the goals and policies of the entire BCCP. Drawing upon the principles and definitions identified in the BCCP Sustainability Element, the 2009 BCCP Transportation Element recognizes the need to develop policies and practices that create a sustainable transportation system. It centers itself on the three "pillars" of sustainability: environment, social equity, and economy. The goals, objectives, and policies included in the BCCP Transportation Element translate these three components of sustainability into action and help the County achieve its vision to provide high quality, safe, sustainable, and environmentally responsible transportation to meet the mobility and access needs of all users.

Goal 1 – Ensure Effective and Efficient Management of the Existing Transportation System. Manage and maintain existing transportation infrastructure and services in a cost-effective manner.

Goal 2 – Minimize Environmental Impacts. Minimize the negative environmental impacts of the transportation system such as air pollution, green house gas (GHG) emissions, noise pollution, water pollution, land and wildlife habitat fragmentation, land disturbance, and resource consumption.

Goal 3 - Ensure Safety for All Modes. Provide for transportation system development and operations that result in safe and secure travel by all modes and that enable prompt and effective emergency response.

Goal 4 – Support a Healthy and Sustainable Economy. Develop a transportation system that supports a robust economy and increases resiliency to economic fluctuations.

Goal 5 – Ensure Equitable Access to the Transportation System. Ensure that adequate

transportation exists for all users regardless of age, income, or ability.

Goal 6 – Enhance County Identity and Community Character. Promote a transportation system that preserves, highlights, and enhances the County’s diverse rural character and the history and culture of its unique communities.”

Highlights:

- US36 Corridor: Our collaborative efforts with the 36MCC, 36 Commuting Solutions, RTD and CDOT have resulted in \$305 million in funding for the US36 BRT/Managed Lane Design Build Project.
- Comprehensive Plan Update: Completed update of the Transportation Element of the Comp. Plan with a focus on sustainable transportation.
- Multimodal Transportation Standards: Completed the Multimodal Transportation Standards in collaboration with LU and the County Attorney’s Office that incorporates all modes into county transportation infrastructure design and review of proposed development.
- Transportation Master Plan: Initiated planning effort to develop first county multimodal transportation plan to guide implementation of policies identified in comprehensive plan.
- Continuation of the innovative alternative mode programs, including:
 - o Successful implementation of the JUMP service extension to Erie
 - o Completion of the SH7 Transit Signal Priority Pilot Project
 - o SH119 Final Mile/Bike Share Pilot Project
 - o Collaboration with 36 Commuting Solutions on a US36 Final Mile Study
 - o DRCOG TIP funding for continued BOLT and Y buy up to increase service
 - o Continued support for the successful transit service to Ft. Collins in collaboration with others
 - o Mobility 4 All program and JARC grant that assures two years of funding to assist low income resident with mobility needs
 - o Community EcoPass for Lyons, progress on Community passes for Nederland and Longmont, as well as development of program based EcoPass for Housing and Human Service clients.
 - o Construction of Coal Creek, Rock Creek, Meadowlark, 4 Mile Creek, initiation of LoBo;83rd-95th trail, design of Two-Creeks trail extension through Erie.
 - o Completion of the Mountain Transit Feasibility Study and initiated service to Gold Hill, with potential expansion to Jamestown
 - o Construction of over 50 miles of shoulders on county roads to increase safety for all modes.
 - o Support for employers/neighborhood outside of Boulder to purchase EcoPasses.
 - o Strong Employee Transportation program that provides incentives support for employee alt. mode usage including ecopass for employees, monthly pass support for hourly employees, support for vanpool and carpooling, B-cycle membership for employees, Alternative Mode Week
- Sustainability Initiatives, including:
 - o Roofs to Roads Pilot Project/Asphalt shingles in 63rd, and to be included in Cherryvale and Valmont. Recycled rubber to be piloted in Valmont Rd. Project.
 - o Conversion of 5 hybrid vehicles to plug in/vehicle to grid technology
 - o Participation in development of local biodiesel pilot effort for Road Mntnce. Diesel vehicles
 - o Use of 20% biodiesel in all Trans. Diesel vehicles, retrofit of heavy duty diesel to include advance emission controls, summertime 4/10 workweek for maintenance to reduce energy consumption
- Canyon Bike/Resident Work Group Collaborative Effort, including:

- o Survey effort
- o Bike Rest Areas
- o Signage
- o Focused sweeping/maintenance efforts in canyons

IV. Community Services

Boulder County Community Services (BCCS) has a regional role in human services, working with many partners to help those most in need.

BCCS works as one partner among many to promote healthy families and safe communities. In concert with federal, state, and local governments, service providers, non-profit organizations, foundations, faith communities, businesses, schools, the criminal justice system and others, BCCS seeks to build and sustain a coordinated regional human services system to provide services, supports, safety and opportunity to those most in need.

BCCS’s priorities for human service investments are programs and services in partnership with the community that enhance quality of life, supports and protects our county’s diverse community of adults, children, families, and elders, and promotes economic independence, and self-sufficiency.

The department defines its mission within the Bell Policy Center’s Cycle of Opportunity framework (www.thebell.org). The Cycle of Opportunity represents a sustainable system of moving individuals from crisis and dependency towards strengths-based and asset-based approaches over a lifetime. It is important to note that once individuals and families enter the Cycle of Opportunity, it is self-sustaining and the benefit can last generations.

BCCS programs within the cycle can only be successful if they recognize that there are critical inter-relationships among economic, social, and environmental health; that the planned physical environment has an impact on social conditions; and that the quality of environment, economic, and social health is built upon the full engagement of the community. Our programs are implemented by recognizing, respecting and valuing cultural and social diversity; by understanding that social and cultural inequities create environmental and economic instability; endeavor to ensure that basic health and safety needs of all residents are met; work within a context that strives to support culturally and socially diverse communities to prosper and connect with the larger community; and provide opportunities for those who are under-represented, under-participating, and under-served to be engaged in program planning and implementation.



These programs are:

- **Aging Services** plans, develops, coordinates, funds, advocates for and evaluates a wide range of services for older adults and their families/caregivers.
- **Community Action Programs** advocates for and helps organize programs that foster self-sufficiency for low-income people, particularly youth, families, and people of color.

- **Community Justice Services** provides bond assessments, pretrial supervision and preventative programs to youths and adults who are involved with the courts. Division personnel also provide specialized services to incarcerated individuals. The division coordinates and monitors services provided by vendors to the court involved population.
- **Child Protection Review Teams** review and evaluate all physical, sexual and emotional abuse and neglect cases handled by Social Services and law enforcement.
- **Head Start** is a comprehensive child development program for low-income families and children (age 3-5) designed to meet the individual needs of children through a partnership between teachers and parents.
- **Healthy Youth Alliance** is a coalition of community partnerships and County wide agencies which promotes healthy decision making in youth and families.
- **Veterans Services** develops and submits claims for benefits to the Department of Veterans and ensures linkages to community-based services.
- **Volunteer Initiatives** serves all county departments and office volunteer programs by promoting, enhancing and celebrating these volunteer programs.
- **Workforce Boulder County** is a comprehensive one stop career center providing employment and training services for all job seekers and employers through a variety of programs.

V. Parks and Open Space

Boulder County owns or oversees almost 98,000 acres of open space, conserving natural, cultural, and agricultural resources and providing public uses that reflect sound resource management and community values.

The Inventory of Sustainability Practices at Parks and Open Space include:

- ✓ Agriculture:
 - ✚ Low income family gardens
 - ✚ Beginner farmer training
 - ✚ Water measurement on produce fields
 - ✚ New measuring devices for agricultural ditch water
 - ✚ Pasture management and weed control
 - ✚ New water efficient irrigation at the Fairgrounds Community Garden
 - ✚ Food safety training
 - ✚ Increased water efficiency through center pivot irrigation
 - ✚ Promoting organic farming through capital investments (center pivots, creating ponds, and lease reductions)
- ✓ Carbon Inventory:
 - ✚ Buildings
 - ✚ Transportation emissions
 - ✚ Land management practices including CO2 emissions from agricultural, restoration, native grassland, and forested properties

- ✚ Carbon sequestration through perennial agricultural crops and grassland management
- ✓ Education and Practices:
 - ✚ EnergySmart program
 - ✚ Zero Waste
 - ✚ Kick Gas campaign
- ✓ Energy Efficiency:
 - ✚ Windows and skylights
 - ✚ Automatic Andover lighting timer system
 - ✚ Tank-less water heaters
 - ✚ Battery operated golf cars
 - ✚ New solar chariot, instead of a generator
 - ✚ Solar agricultural water pumps
- ✓ Environment:
 - ✚ Restoring degraded ecosystems reduces GHG emissions and improves water quality, species diversity, and air quality
 - ✚ Tree limbs chipped for mulch and weed-free straw for erosion control
- ✓ Office:
 - ✚ Stratified air handlers for POS shop to reduce wasted heat
 - ✚ WebEx for Tele-meetings
 - ✚ DocuSign (electronic contract routing) and scan documents
 - ✚ Plan/combine trips to stores
 - ✚ Office equipment are on timers and set up to duplex
 - ✚ Composting, recycling, and biodegradable utensils/plates
- ✓ Recreation and Facilities: Recycle and Reuse Materials
 - ✚ Salvageable metal, such as steel from welding and fabrication projects, old fencing, steel culverts, pipe
 - ✚ Fairgrounds concrete for Road Maintenance
 - ✚ Crushed Asphalt on the Coalton parking lot
 - ✚ Composite wood material on benches
 - ✚ Stone instead of lumber to define parking areas
 - ✚ Obtain dump manifest from contractors to prove accountability
- ✓ Vehicles:
 - ✚ Staff carpooling to jobsites
 - ✚ Campaigns: No idling, alternative transportation, and Kick Gas
 - ✚ Biodegradable 2-cycle oil
 - ✚ Replace some trucks with gas efficient trucks
 - ✚ Reward staff using alternative transportation

VI. Housing & Human Services

Sustainability Introduction and revisions needed by HHS...

Boulder County Housing and Human Services is dedicated to creating and sustaining healthy communities that promote individual responsibility, safe and stable families, economic growth, strong community partnerships and human dignity in the following areas:

- Food
- Financial
- Health
- Housing
- Adult & Senior
- Family & Children

VII. Administrative Services

Mission: To ensure that Boulder County's operations and decision-making processes reflect our deep commitment to environmental sustainability and to build partnerships to help make the broader community more sustainable.

a. IT

Goals	Current Practices	Final Outcome
Climate change: To continually reduce our greenhouse gas emissions as a county organization, with the goal of a 50% reduction by 2030		
<i>Insure we purchase products that consume less energy overall, reduce energy consumed when idle, reduce the heat generated by our products.</i>	<i>We have incorporated these goals into our current purchasing process. We now test and document the Kilowatts used by hour for each product we purchase.</i>	Continue to reduce the amount of energy our technology products use at Boulder County, Reduce CO2, purchase products with longer life cycles and continue to purchase products made of recycled materials.

Goals	Current Practices	Final Outcome
Technology Goals: Purchase hardware and software products that reduce Co2, reduce our energy usage, and use recycled products. Combine those goals with a primary goal of reducing the amount of materials we put into a landfill.		
<u>Choose equipment with longer life-cycles</u> to avoid landfill long-term. I.e. Copiers, Printers, Servers, Personal Computers, Storage Arrays	<i>Incorporated into our current purchasing policies</i>	
<u>Use Recycled Materials:</u> use recycled materials in all of the products we purchase	<i>We are starting to use this criteria in the products we purchase</i>	Our industry has just started to use recycled materials in their new products. At the moment there are only a few technology vendors taking the lead in this area.
<u>Require Recycled Packing and Shipping Materials</u>	<i>We have started to incorporate this in to our purchasing requirements.</i>	
<u>Purchase Products that have a High Energy Star Rating</u>	<i>This is one area where we have made significant progress. We have started to record the KW/hour rating for all products we purchase. This has allowed us to reduce the amount of energy used by choosing products that use less energy.</i>	

Participate in the State Electronic Challenge

We have joined the SEC and have completed the initial equipment survey. We have started to use the Electronic Product Environmental Assessment Tool (EPEAT) for all products we purchase.

Purchase software that manages energy use

This is one area where we have made significant progress. By deploying products like Windows 7 and VMware, we have been able to reduce the energy used by our servers, thus reducing the heat and cooling required in our 2 data centers. By using Windows 7, we can reduce the KW/Hr. by 80% by using the new sleep/energy saving features built into the application.

Continue to focus on software products that reduces the amount of energy used, especially with products that are typically left on 24 x 7 like, copiers, servers, printers and telephones.

Implement Technology that Reduces the need to travel

We have started to promote the use of video conferencing for all meetings that require staff to travel.

Document energy usage and greenhouse gas emissions by product category

We have started to document our KW/hr. And Co2 ratings by product.

Encourage staff to turn off equipment when not in use

We make an effort to remind staff at least once a quarter.

Partnerships: Work cooperatively with other public agencies when possible to reduce duplication of resources and share hardware and software when possible. Ensure that county departments and elected officials work collaboratively to advance these goals.

Consider sustainability choices and effects on projects with client departments.

Share or consolidate duplicate systems that require energy or additional equipment and resources.

Education: To continually educate our employees and our Customers issues

Consider sustainability choices and effects on projects with client departments.

Provide on-going employee training on issues like purchasing products that consume less energy, or by turning equipment off when not in use and purchasing products that use recycled materials.

b. Architects

c. Human Resources

d. Facilities Management

Boulder County strives to meet the highest standards in creating and operating buildings that are energy and water efficient, reduce waste and provide a quality environment for employees.

Energy Star Buildings

County LEED-certified buildings

Pursue LEED certification for your buildings

EPA provides an innovative energy performance rating system that uses Benchmarking to rate the performance of a building on a scale of 1-100 relative to similar buildings nationwide. The rating system accounts for the impacts of year-to-year weather variations, as well as building size, location, and several operating characteristics. Buildings rating 75 or greater may qualify for the ENERGY STAR.

Boulder County is Benchmarking 12 County buildings and has been able to achieve the Energy Star label on the following buildings: Courthouse Annex, Boulder; Simpson Building, Lafayette; Sindelir building, Longmont.

In addition to constructing all new buildings to meet high sustainability standards, the County is making changes to existing buildings and complexes to conserve energy and reduce waste and pollution.

More efficient lighting

In 1996 Boulder County replaced all Florescent T-12 magnetic ballast light fixture with energy efficient T-8 electronic ballast light fixtures. This project was financed through savings in energy and with rebate money from Xcel Energy. The project paid for itself with in 10 years.

LED Exit Signs - The County replaced all Exit signs with LED lighted signs. These signs save as much as 35 watts of electrical energy per sign and can last as long as 10 years with out a light bulb replacement. These signs save the County many thousands of dollars per year in energy and labor cost.

Motion Sensors save energy by shutting off lighting in spaces that are not occupied. The County has installed motion sensors in many Conference Rooms, Restrooms, storage spaces and even Courtrooms.

Energy-saving heating and cooling systems

In County buildings the heating and cooling systems are composed of many components that act together to provide comfortable spaces for people to work in. Many of the County buildings were constructed at a time when energy was cheap. Some of the older buildings have minimal insulation. Equipment like boilers and chillers for conditioning spaces are in efficient and getting old. Over the last several years the County has been systematically replacing this older equipment and upgrading the systems to the newest most energy efficient technologies.

As an example, the 3 building Courthouse complex on the Pearl Street Mall had both the hot water and chilled water systems centralized and replaced with new modern efficient systems. The center Old Courthouse built in 1935 had a new variable air volume (VAV) system installed in 2002 that included shoe horning a modern air handler invisibly into the clock tower at the top of the building. This project included many components that improved the systems energy efficiency such as:

Variable Frequency Drives (VFD) – These devices regulate fan and pump motor speed dependent on load or need of the systems. The VFD can save as much as 50% of the energy when compared to systems without VFDs.

High Efficiency motors – The County standard for motor replacements is to use NEMA rated Premium high-efficiency motors. These motors are also eligible for rebates from Xcel Energy.

Chillers – Ozone depletion has been connected to the CFC refrigerants used in air conditioning equipment. New refrigerants are being developed that are less harmful. When a chiller needs to be replaced at the County only chillers using the latest environmentally save refrigerants are used. The most recent example was the replacement of the Fairgrounds Exhibit Building Chiller which uses Puron® (R-410A) Environmentally Sound, High-Efficiency Refrigerant.

Boilers – Proper sizing of equipment to the building need is important in all applications including boilers. Colorado has large swings in temperature thorough out the year, this is one of the reason that the County typically has multiple boilers in a building. Energy can be saved this way by operating small boilers only when a small amount of heat is needed and turning on more boilers as the heating needs increase. The County is also installing higher efficiency boilers and will be standardizing to condensing boilers in future projects.

Building Automation – Boulder County uses an extensive computerized Energy Management System (EMS). The EMS receives data from sensors and automatically controls equipment to provide comfortable spaces with optimum efficiency. The EMS also displays this information graphically on a computer which staff use to trouble shoot problems and make repairs quickly which all contributes to energy efficiency.

Windows

Window Tinting – An economical way to reduce heat gain and loss through glass is to apply window film. The high performance films installed on the glass at the Courthouse, Justice Center and other buildings throughout the County reject 50% of the solar heat gain thorough the glass but yet still allow visible light through. Staff sitting by these windows have really noticed the difference.

Window Replacement – In older County buildings, single pane windows are systematically being replaced with dual pane low-e coated windows that have thermally broken aluminum frames. This is a costly undertaking but provides energy savings that will last the life of the buildings.

Roofs

Roofing – The County has standardized to white Energy Star certified roofs. These roofs help reduce the heat island effect in urban areas.

e. Resource Conservation Division

The Resource Conservation Division (RCD) approaches Sustainability from a materials management and zero waste perspective. Our goal is to reduce the amount of materials utilized in manufacturing and construction; reuse materials when possible; and, manage recyclable and compostable materials so the embodied energy is conserved. These programs save energy when materials are re-manufactured and also reduce the energy and cost incurred by extractive industries and the processing of virgin materials into final goods. Materials that cannot be reused, recycled or composted are managed in a manner that provides the most environmentally secure disposal possible.

Since waste reduction starts with production and proceeds through purchasing, use, and diversion of used products, RCD's zero waste perspective advocates eliminating waste while viewing any remaining "discards" as important resources to be returned to the market place through reducing and reusing, recycling, or composting.

The RCD offers a variety of programs including education and outreach, operation of facilities, administration of numerous contracts for service, regulation of the waste/diverted materials hauling community, funding for diversion programs and development and support of programs for evolving technologies.

Sustainable programs managed and coordinated by the RCD consist of the following categories:

Boulder County Recycling Center

The Boulder County Recycling Center accepts and processes single-stream recyclable materials. Single-stream recycling means all recyclable containers and recyclable paper materials are combined in one bin. Equipment utilized at the facility include balers, sorting platforms, paper screens and a system to optically remove stones, ceramics and porcelain from the glass.

Single stream collection and processing supports the county hauler ordinance that requires Pay As You Throw (PAYT) waste disposal pricing, single-stream curbside recycling collections and organics collections from residents in the un-incorporated county. The county's ordinance has been followed by similar ordinances, contracts or operations in the cities of Boulder, Lafayette, Longmont and Louisville.

The Recycling Center accepts materials from residents and small businesses at the public drop-off center, 24 hours and seven days per week. Local licensed haulers dump materials directly on the tipping floor of the processing area. The hauler collects and delivers recyclables from residential curbside collections, [recycling drop-off centers](#), and business recycling programs.

The Boulder County Recycling Center prepares recyclable materials for shipment to recycling mills. The facility processes over 50,000 tons a year. The facility includes a public drop-off center; tipping floor; materials processing center for shipment preparation; rail spur; and offices. The use of a rail spur reduces truck traffic. Every boxcar filled eliminates four tractor-trailers. There is also a secondary tip area where clean paper products from drop-off centers can be unloaded and fed directly to the baler. This reduces operator costs and enhances revenues for material suppliers.

Environmental sustainability is maximized with special attention to:

- Daylighting (clerestory lighting) throughout the administration and processing buildings
- Use of sustainable and recycled materials
- Reuse of roof water for irrigation
- Innovative water polishing techniques to protect the wetlands
- Xeriscape and native plant landscaping
- Attention to storm water management

The RCD provides guided and self-guided tours of the Recycling center. Staff provides guided tours on the first Tuesday of each month from 2:00 – 3:00 p.m. Public education tours provide visitors the opportunity to see all aspects of the recycling process by incorporating:

- Outdoor amphitheater
- Viewing walkway and observation tower in the processing building
- Education center

- Interactive educational displays

A 15-minute educational video about single-stream recycling is available to watch at the Recycling Center, or online at their website at www.bouldercountyrecycles.org. The video offers an in-depth look at the single-stream recycling process at the Boulder County Recycling Center. The tour begins at the curbside recycling bin and follows the single-stream materials to the tipping floor of the Boulder County Recycling Center. Mr. Can, the star of the show, continues the recycling journey into the high-tech world of single-stream processing. This video provides a behind-the-scenes, up-close view of the equipment in action.

Hazardous Waste Management

The RCD provides the staff and operates the Hazardous Waste Material Management Facility (HMMF) located at 1901C 63rd Street in Boulder. The RCD coordinates the collection of hazardous waste generated through county operations and for the general public, as well as for household hazardous waste collections in various communities throughout the year (Superior, Broomfield, Longmont, and Lafayette). In-house hazardous waste collections are held annually. The RCD coordinates education and outreach regarding proper hazardous waste management and disposal, and offers recommendations to alter purchasing habits to avoid toxic chemicals.

The HMMF has a “Reusable Products” area where reusable items such as automotive and hobby supplies, garden and yard items, home maintenance and cleaning products, and paint are available to residents at no charge.

In 2011, the HMMF began accepting business wastes, including wastes from churches, non-profit agencies, and schools. The new business service will be limited to those businesses that generate small quantities of hazardous wastes and that are classified by the State of Colorado as “conditionally-exempt small quantity generators.”

Every year, the HMMF staff organizes an in-house hazardous waste collection. Employees submit their hazardous waste inventory, and HMMF staff collects each department’s hazardous waste on a specified date.

In-House Recycling

The RCD manages the contract for in-house recycling. Through the RCD budget, deskside recycling bins are provided to every Boulder County employee. Eco-Cycle, our current vendor, provides totes and dumpsters as requested by the RCD to all Boulder County buildings. Collection service is scheduled based upon the needs at each facility. Service is adjusted based upon bi-annual assessments of container levels provided by Eco-Cycle, custodial staff monitoring, and by seasonal needs of the location.

In-House Compost

The RCD manages the contract for in-house composting. Through the RCD budget, compost bins are provided for every Boulder County building, particularly in kitchens, restrooms, break rooms and conference rooms. Eco-Cycle, our current vendor, provides compost dumpsters as requested by the RCD to all Boulder County buildings. Collection service is scheduled based upon the needs at each facility. Service is adjusted based upon bi-annual assessments of container levels provided by Eco-Cycle, custodial staff monitoring, and by seasonal needs of the location.

In-House Trash

The RCD manages the contract for in-house trash disposal. Through the RCD budget, trash bins are provided for every Boulder County building, particularly in conjunction with zero waste stations. Western, our current vendor, provides trash dumpsters as requested by the RCD to all Boulder

County buildings. Collection service is scheduled based upon the needs at each facility. Service is adjusted based upon bi-annual assessments of container levels provided by Western, custodial staff monitoring, and by seasonal needs of the location.

In-House Confidential

The RCD manages the contract for in-house confidential shred services. Through the RCD budget, secure confidential collection bins are provided for every Boulder County building. Cintas, our current vendor, provides these bins as requested by the RCD to all Boulder County buildings. Collection service is scheduled based upon the needs at each facility. Service is adjusted based upon the individual needs and service requests at each site.

In-House Electronics Round-Ups

Boulder County's Electronic Waste Policy (# V13) requires that county departments manage waste electronic equipment in accordance with Colorado's Hazardous Waste Regulations, Universal Waste Rule. Examples of E-waste are: computers, televisions, fax machines, printers, cell phones, etc. E-waste cannot be sent for landfill disposal but instead must be either recycled, or disposed of as hazardous waste.

The Resource Conservation Division has contracted with Eco-Cycle to accept for recycling all obsolete or non-working electronic equipment generated by the County. Two management options are available--participating in the Quarterly Roundup and allowing RCD staff to pick up your items, or by delivering your e-waste directly to Eco-Cycle's Center for Hard to Recycle Materials (CHaRM) and submitting your inventory to the RCD.

In-House Book Collection

The RCD organizes an annual book collection to all Boulder County departments. Through the Eco-Cycle contract, paperback and hardcover books, such as obsolete statute books, are collected and delivered to Eco-Cycle's CHaRM facility. The book collection is provided since these items cannot be placed in single-stream recycling.

In-House Education and Outreach

The RCD created an education work plan and update it each year. This plan includes the following focus areas: Meetings/Coordination; Website; Training; Outreach; Promotional and other events; Research; Service Maintenance and Improvement; and Evaluation and Measurement.

Meetings include the Sustainability Education and Outreach Sub Committee, the Sustainability Green Purchase/Zero Waste Sub Committee, the Zero Waste Champions meeting, and annual meetings with the custodial staff.

RCD maintains an internal website on InsideBC and keeps information current relating to zero waste and other in-house programs offered. A public website is also maintained by RCD staff to provide zero waste information to the public.

Training is offering in the following modalities: videos; targeted training in departments where issues have been identified; zero waste presentations at departmental meetings; zero waste champion newsletters; and new employee orientation training. Zero Waste Champions are coordinated through the RCD staff. Annual meetings are held to receive feedback from the champions about what education and outreach is needed in each of their departments. The champions are used as the main point of contact in each department to coordinate necessary education and training sessions.

RCD outreach includes: monthly InsideBC Spotlights; quarterly InsideBC tips; and bi-monthly #ALL e-mails. The zero waste display cases at the courthouse and Justice Center are updated quarterly to highlighted needed areas of education.

Promotional and other events include the annual Earth Day compost giveaway, e-waste roundups, book roundups, and book collection.

RCD staff continues to research the most current information pertaining to zero waste. Some examples include: Research other county, municipal, state, social, and community programs to see best practices; Research effective environmental language and framing for more impactful messages in trainings; Conduct annual sustainability survey to identify where missing links are and fill them in; and Research local recycling programs to identify validity and certification of the program.

Service maintenance and improvement is provided through continuous updating of educational posters to reflect the most current zero waste standards or policy. All service requests are tracked and responded to within 24 hours. All inquiries are responded to in a timely fashion.

Evaluation and Measurement is gained through various modes: informal spot-check waste audits are conducted while attending departmental meetings; waste analysis and composition studies are completed bi-annually to evaluate progress and quantify diversion rates; annual walk-throughs at each campus are conducted to check signage, bins, and toters; and annual assessment of service levels and toters with adjustments made as needed.

School Environmental Education Program

Boulder County RCD contracts with Eco-Cycle to operate an environmental education program that serves all public schools within Boulder County. Eco-Cycle develops, schedules, and presents a minimum of 500 environmental education programs in schools each year. Eco-Cycle offers at least two of the following three formats (classroom, assembly, or field trip) for each of at least five topics similar to the topics currently offered: Recycling and the environment; Paper making and the solid waste dilemma; Paper making and the recycling process; America's forests, Recycling and paper making; Forestry and conservation; The rainforest and recycling; Nature's recycling and composting; Household toxics: A safe environment begins at home; Mr. Turtle's mishap: a look a litter's impact on the environment; Eco-elf pre-cycling program; Follow the waste stream tour; Energy and our environment; and A tour of the Boulder County Recycling Center. Eco-Cycle also developed and maintains an expanding resource library comprising books, activity guides and videos used to support program topics which are available to teachers and students upon request. Approximately 2,000 students per year are bused to the Recycling Center and provided tours of the Facility by Eco-Cycle staff.

Yard and Wood Waste Drop-Off Site

Boulder County and the City of Boulder sponsor a yard waste drop-off center and wood waste drop-off center at Western Disposal. Boulder County contractors bringing material from construction job sites located in the city limits of Boulder pay 50% less than the standard disposal rate. Residents in the City of Boulder are free of charge. Boulder County residents pay 60% of the per-ton cost, and Boulder County RCD subsidizes the remaining costs. Woodchips are available free of charge and must be loaded by the customer.

Mountain Transfer Stations & Recycling Centers

The RCD manages two mountain transfer stations in Allenspark and Nederland. Both transfer stations are staffed facilities accepting bagged and loose garbage from households and small businesses for a fee. Recycling is free of charge. Large items such as couches, desks, dishwashers, dryers, mattresses, stoves, washers, and appliances with CFCs, such as refrigerators, air conditioners, freezers are also accepted. The Nederland Transfer Station also accepts scrap metal free of charge.

Drop-Off Centers

The RCD also oversees two recycling drop-off centers in Niwot and Lyons. Single-stream recycling is available free of charge to the public at these locations.

Composting Education

Boulder County RCD offers a series of free interactive composting workshops to Boulder County residents twice a year –in the spring and in the fall. Workshops are typically held in Boulder, Lafayette and Longmont. The RCD provides compost bins to residents at wholesale cost at these workshops, and also offers a separate bin sale annually.

The Recycling Center also has a compost demonstration garden on-site, which have been designed to have a variety of composting units on display so residents can see and experience the units before building or purchasing their own.

Compost Giveaway

The RCD organizes a compost giveaway for Boulder County employees every year during Earth Week. The compost is provided by A1 Organics, the same facility that processes all of the compostables collected in County buildings, in order to truly “close the loop”.

Waste & Recycling Hauler Licensing

Boulder County's hauler ordinance requires all trash and recycling haulers operating in unincorporated Boulder County to be licensed and to provide curbside recycling and composting collection, and Pay-As-You-Throw pricing for trash disposal. In addition, haulers must report annual tonnages. The RCD staff processes all hauler licensing applications and permits and monitors compliance. Staff also compiles annual data based upon the reports received from haulers.

Zero Waste Coupons for Businesses

Boulder County RCD supports local businesses in reducing waste by offering a coupon worth \$150.00 towards Zero Waste services. These coupons are available to Boulder County businesses that sign up for new recycling services or take the next step towards Zero Waste by committing to new composting services.

Zero Waste Funding

Every year, the Boulder County RCD allocates \$50,000 for its Zero Waste Funding Program (ZWFP). The ZWFP provides funds for waste reduction education and infrastructure. Since 1997, \$580,000 in grant money has been awarded. The minimum funding amount available for a project is \$1,000 with the maximum of \$10,000. Local governments, non-profit organizations, school districts, schools, private companies and individuals may apply as long as the scope of work is in Boulder County or City and County of Broomfield.

Resource Conservation Advisory Board

The Resource Conservation Advisory Board (RCAB) was formed in 2002 to advise the Board of County Commissioners on major waste diversion policies and strategies. Membership is comprised of five at-large members, one representative from Boulder County government and one representative from each of the following organizations - Center for ReSource Conservation, Eco-Cycle and University of Colorado Recycling Services (appointed by the County Commissioners); one representative from each of the following communities (appointed by the community that they represent) - Boulder, Broomfield, Erie, Jamestown, Lafayette, Longmont, Louisville, Lyons, Nederland, Superior, Ward. Meetings are held on the 4th Wednesday of each month, 4:45 - 6:30 p.m. at the Boulder County Recycling Center.

Roofs to Roads EPA Grant Project

In October 2009, Boulder County RCD was awarded an Environmental Protection Agency, Region 8 grant. Funding supported efforts to build awareness about shingle recycling and the benefits of using shingles in asphalt pavements, to Colorado's building community. In February 2009, roofing contractors began recycling asphalt shingles through this grant. Collection points for demolition (tear-off) shingles are located in Denver and Erie. Over 15,000 tons of shingles were diverted in 2009. In April 2009, Boulder County Transportation Department showed its ongoing leadership in the use of alternative and environmentally friendly pavement, allowing 5% recycled asphalt shingles in the North 63rd Street paving project in Longmont. A six-month review of that pavement's performance found it in good condition.

In 2011, partially as a result of the Roofs to Roads project, CDOT released specifications for the use of shingles in CDOT roadways and paved the west-bound overlay project on Hwy 36 with asphalt that included recycled roofing shingles.

Colorado Product Stewardship Council (CoPSC)

The Colorado Product Stewardship Council (CoPSC) was formed in July 2010 to promote and advocate for product stewardship in Colorado. CoPSC is a diverse group of interested parties representing local governments, non-profits organizations, large and small businesses, including recyclers and waste hauling companies, schools, universities, and individuals. Staff members from the RCD are active on this council and participate in associated legislative meetings and action-oriented projects to promote waste minimization, reuse, recycling, and sustainable recovery.

Boulder County Fair

RCD coordinates the zero waste activities at the Boulder County Fair. This effort began in 2006 with the RCD represented with an education booth. Activities increased to include collection of recyclables and transitioned to collaborating with the independent Fair Board and Parks and Open Space to a requirement that all food vendors provide recyclable or compostable food service items. RCD arranges for volunteers to staff the recyclable/compostable/waste 'trios', sorting of the entire fair's recyclable/compostable/waste materials in 2009 and 2010 and has provided education in this regard to the 10,000 or so public attendees at the Fair.

Fourmile Fire Response and Clean-Up

The Boulder County RCD staff responded immediately to the Fourmile Fire in September 2010 by providing food waste collection sites in the evacuated areas affected by the fire, all staffed by RCD. The Fourmile Canyon Fire Debris Management Plan was written by RCD to guide responders on how best to deal with the fire debris. RCD has organized all dumpsters, roll-offs, clean-up, and inspection, and associated expenses related to the fire clean-up efforts. The RCD also organized a hazardous waste collection event after the fire to help residents dispose of hazardous materials on their property.

Annual Reporting

The RCD prepares annual in-house reports which show how many resources are saved through their diversion efforts each year. A separate report is prepared for each of the Transfer Stations so residents can visually see the impact they have through their recycling and diversion efforts.

Studies and Reports:

- Construction and Demolition Waste Diversion 2009
- Organic Waste Generation and Management Survey Report 2009
- Organic Waste Management Feasibility Evaluation Report 2010
- Waste Composition Study 2010
- Zero Waste Action Plan 2010
- Fourmile Canyon Fire Debris Management Plan 2010
- Waste Analysis and Characterization Study (WACS) 2010
- Waste Analysis and Characterization Study (WACS) 2011

Other Sustainable Measures

In addition to all of the above programs, the RCD staff actively demonstrate a sustainable model of business through environmental preferable purchasing practices; double-sided printing; using natural daylight instead of having lights turned on; hosting zero waste (or darn near) meetings and events; encouraging use of alternative transportation for employees; allowing employees who commute long distances to work at home on occasion; using the surplus system to discard of unwanted items; proper disposal of all waste streams; and by maintaining a toxic-free work environment.

VIII. Sherriff

Sustainability statements needed by Sherriff...

6. FINANCIAL COMMITMENTS (2005 – 2010)

I. Overview

Boulder County continuously invests in programs that support the mission of the sustainability initiative. In 2005, voters approved a ballot issue that removes certain state TABOR requirements allowing Boulder County to retain and spend property tax revenues that otherwise would have been refunded.

Boulder County earmarked 6.67% of those additional funds to focus on environmental sustainability efforts. In 2006 and 2007, these earmarked funds provided approximately \$773,000 to support Boulder County's Sustainability-related efforts, which is in addition to the funding that the County allocates from the general fund to support various internal operations, County programs, non-profits and other partnerships that support sustainability. These programs include:

- Boulder County Resource Conservation Division
- Boulder County Transportation Alternative Modes Division
- Eco-Cycle
- Longs Peak Energy Conservation
- The Center for ReSource Conservation
- Partners for A Clean Environment (PACE)
- Special Transit
- Wildlands Restoration Volunteers

Over the last few years Finance has initiated several projects supporting our sustainability objective. The largest one was the implementation of a new financial system utilizing scanning technology for review and storage of invoices rather than using our previous paper methodology. Invoices to be paid by the County are now scanned or when received electronically simply attached to transactions in the accounting system and then routed for approval and payment along with eventual storage.

Another initiative was our electronic bid submission process. Vendors replying to RFP's are now encouraged and sometimes required to submit their responses electronically rather than in paper form.

Financial Services also supports a number of County programs:

The Qualified Energy Conservation Bonds Fund was appropriated to construct infrastructure projects that have a payback from energy conservation. The debt authority for this program was approved by voters in the 2009 election, and allowed the County to sell bonds for which there is a Federal interest subsidy available. The 2011 appropriation for this program is \$4.3 million.

Another new program budgeted in the 2011 adopted budget is the Better Buildings Grant Fund. This program is funded by a Federal ARRA grant to implement energy efficiency in older buildings. The \$13.5 million appropriated in 2011 is a portion of a multi-year project that also includes working collaboratively with other local governments and agencies.

The voters in 2008 approved bonding authority for a Climate Smart program that enables local residents and businesses to implement cost effective programs for reducing energy use and preventing climate change. The budget for the Clean Energy Local Improvement District includes debt retirement from assessments on the properties that participate in this program and administrative fees.

Purchasing Policies & Procedures

To describe the process by which goods and services will be procured by Boulder County and to encourage the purchase and use of environmentally preferable supplies, services, or construction.

Office Supplies & Paper

The procurement of office supplies, including compostable food service items, rechargeable items, and miscellaneous office supply items should be identified with the “green recycled content symbol” whenever possible.

1. Neon, fluorescent, astrobrite and dark-colored paper: These types of paper shall not be purchased except for public safety uses. Kraft/goldenrod (orange) colored interoffice mailing envelopes shall not be purchased.
2. Paper for Copying & Printing: Recognizing that price differentials no longer exist between different grades of post-consumer recycled content paper, and that there is a beneficial state award for 100% post-consumer recycled content paper, all purchases of shall be white or pastel colored and contain 100% post-consumer recycled content. If an office/department encounters printing or copying problems then, 50% post-consumer content may be used until printing or copying issues have been resolved.
3. Other Office Paper Products: (legal pads, notebooks, calendars, file folders, envelopes) shall be purchased with the highest post-consumer recycled content available.
 - a. Printing Paper: For print jobs, the highest post-consumer recycled content paper available shall be used. If post-consumer recycled content paper is unavailable then paper used will be either: The highest pre-consumer recycled content available.
 - b. A specialty paper from a renewable source such as sugar cane/kenaf, or harvested from a source certified by the Forest Stewardship Council (FSC certified)
This policy also applies to outside printing services with the exception of election ballot printing.
4. Bottled/Dispensed Water: Where alternatives such as tap water are available, the purchase of bottled water for County-sponsored meetings and events and use of bottled water dispensers in County buildings is discouraged. Filtered tap water may be obtained through faucet filters or water filtration systems that provide cooled and/or heated tap water. Pre-planned alternatives to bottled water are encouraged, e.g., pitcher of water from tap. Exceptions may be made at the discretion of an EO/DH or Manager, if the use of bottled water is thought to be the best alternative for a particular situation.

Landscape Products

In congruence with State of Colorado purchasing policies, all landscaping, including, but not limited to, new construction, renovations, operations and maintenance by Boulder County agencies and institutions, including workers and contractors providing landscaping services, shall employ sustainable landscape management techniques for design, construction and maintenance whenever possible, including, but not limited to, storm-water control, integrated pest management, grass recycling, drip irrigation, composting, and procurement and use of mulch and compost.

Compost purchases for all non-agricultural uses must be from facilities fully permitted by the Colorado Department of Public Health and Environment or appropriate state agency, show the U.S.

Composting Council “Seal of Testing Assurance,” and, when cost-competitive, give preference to materials produced from Colorado-generated plant debris (including harvested beetle-kill where available) and/or food and agricultural waste programs. Additional compost purchase guidance, including recommendations for agricultural applications, is available in the 2008 document “Compost / Soil Amendment Classifications” produced by the Rocky Mountain Organics Council and Colorado Association for Recycling.

Environmentally Preferable

Require the procurement of specific supply items as outlined in section K and encourage the procurement and use of all other environmentally preferable products. “Environmentally preferable” means products that have a lesser or reduced adverse effect on human health and the environment when compared with competing products that serve the same purpose.

Product comparisons should consider life cycle factors such as: The availability of any raw materials used in the product being purchased and the availability, use, production, safe operation, maintenance, packaging, distribution, disposal, or recyclability of the product being purchased. Examples include the following: A material or product which is durable, repairable, reusable, or recyclable; has minimum packaging, toxic content or chemical hazard potential; is resource or energy efficient in any or all phases of its manufacture, use and disposal; or, in its use or disposal, minimizes or eliminates the County’s potential environmental liability.

Purchasing will strive to procure such products that are suitable for use, where availability, quality and budget constraints allow.

Boulder County promotes the purchase/leasing of energy efficient, materials efficient, and reduced toxic level products where availability, quality and budget constraints allow. Whenever possible, electronic equipment, such as appliances, computers, water coolers, etc., should meet ENERGY STAR specifications for energy efficiency with power management features enabled.

Whenever possible, products and equipment should be specified to include post-consumer recycled content materials. Products should be packaged and delivered with a minimum amount of recycled packaging that adequately protects the product, but is not excessive.

7. EXTERNAL & INTERNAL RELATIONS

I. Collaborations

The Boulder County Commissioners and County staff are working closely with other local governments, local non-profits and the private sector to achieve sustainability within our communities. These collaborative efforts include:

➤ **EnergySmart**

EnergySmart offers both Residential and Commercial Energy Efficiency Services to help access information and financing options. This service is available to residents and businesses in Boulder County and is funded by the Department of Energy's BetterBuildings Grant to Boulder County (part of the American Recovery and Reinvestment Act).

➤ **Consortium of Cities Energy Strategy Task Force**

The Task Force is a collaboration among Boulder County, the municipalities in the County, the city and County of Broomfield, and their businesses, non-profit organizations and residents to address critical energy concerns and strategies. Topics include reduction of greenhouse gas emissions, promotion of renewable energy production, reducing the energy costs incurred by residents and businesses, and more.

➤ **Sustainable Energy Plan**

The Task Force created a countywide Sustainable Energy Plan that outlines key strategies for reducing energy consumption, adopting renewable and more sustainable technologies and reducing greenhouse gas emissions. Cities that have formally adopted the plan include: Lafayette, Louisville, Longmont, Nederland, Superior, Ward, Jamestown, Lyons and Boulder.

➤ **Facilities Managers Network**

This self-directed group brings together facilities managers from major institutions in the county, including municipalities, educational institutions, and large private facilities, to address ways to increase energy and water efficiency, improve indoor air quality and reduce waste and pollution. Meets quarterly.

➤ **Transit Alliance**

A non-profit that promotes public transit as part of a balanced, multi-modal transportation network in the Denver-Metro region.

➤ **Partners for a Clean Environment (PACE)**

A voluntary, certification program that helps Boulder County businesses make their operations environmentally sustainable.

➤ **Resource Conservation Advisory Board (RCAB)**

The Resource Conservation Advisory Board (RCAB) was formed in 2002 to advise the Board of County Commissioners on major waste diversion policies and strategies.

II. Communication

The County published a new WebSite in December 2010, and the Sustainability office has been working with the WebGovernance Committee to re-new, re-define, and outline the County's commitment to Sustainability through its Programs & Service on the public site: BoulderCountySustainability.org. The next steps are to create an ISP to clarify and revitalize the Sustainability section on the County's internal and external websites, and select a new Sustainability Logo. In order to outreach internally and externally, a new "ShowCase" newsletter is also planned.

8. EVALUATING, MONITORING & REPORTING

I. Best Practices & Internal Process

Building on the County's sustainability successes, and learning opportunities, programs and services to date described in or initiated as a result of this plan need to be monitored. This program has been in place since 2005, and the indicator data already collected will help identify historical trends:

- Waste Composition Study
- COP Funding
- Internal Evaluation
- EnergySmart
- CSLP
- ZAWP

As the County's sustainability planning grows, it is necessary to develop and implement new indicators that best measure how our programs & services are meeting our County sustainability goals.

We need to collaboratively decide what indicators would be best utilized to move forward towards providing the best in public service.

9. IMPLEMENTING NEXT STEPS & FUTURE DIRECTIONS

I. Collaborative Review of Sustainability Documents

Now that this Sustainability Framework & Inventory is completed – based on our collaborative work to complete this document and celebrate our successes – the Department Heads and Commissioners will need to hold a series of Sustainability Planning meetings to solidify relations, and ensure a collaborative path towards an *Integrated Sustainability Plan*.

Items to review – along with this Framework & Inventory – to create the County’s ISP include:

- Sharon McClew’s 2010 “*Report on Organization Issues in the Sustainability Program*”
- James Wood’s Research on “*Sustainability Planning – Best Practices*”

a. Create the County’s 1st *Integrated Sustainability Plan*

A new Integrated Sustainability Plan (ISP) needs to be completed by the Sustainability office, led by the Board of County Commissioner’s and Department Heads, guided by the aforementioned documents.

The Department Heads and Commissioners will need to be facilitated in a way to guide this process, and ensure the County is on the right track based on best practices, and measurement and evaluation protocols.

A sample approach – based on this report – is provided here:

Boulder County Sustainability Next Steps & Action Planning

Executive Summary

This document aims to provide a detailed outline of proposed next steps towards the development of a clearly planned Integrated Strategic Sustainability Plan. This is an addendum to the Sustainability Inventory document which outlines Boulder County’s current sustainability structure, programs, services and policies, and provides a basic structure for implementing next steps and future direction.

Boulder County is facing increasingly complex challenges related to regional growth, economic development and environmental stewardship. The development of an Integrated Strategic Sustainability Plan is vital to addressing these challenges and identifying environmental, social and economic opportunities to provide residents with services that enhance their quality of life.

The proposed next steps are a clear plan for the EODH to inspire ongoing sustainability work through a collaborative process. Through a multi-stakeholder ISP collaborative effort, the county’s sustainability plan can become a model for others across the state and country.

Next Steps & Action Planning

Objective #1 – Complete the Framework & Inventory

- **Strategy:** Completion of the Framework & Inventory – Interviews & data collection with Directors
- **Activities:** Interview all Directors to compile the Sustainability Inventory, along with the “Organizational Issues” document, and agree to a clear path forward. Plan to complete each departments’ current actions, services & programs in the Framework, and compile further next steps as needed.

- **Lead/Partners:** BOCC Directors, James Wood as Facilitator / Chair
- **Start Date:** July/August
- **Completion Date:** September

Objective #2 – Present the Sustainability Inventory to the EO/DH, and Compile Next Steps

- **Strategy:** Presentation of the Framework and Inventory findings to the EO/DH
- **Activities:** Present detailed description of sustainability actions, services, and programs for each department.
- **Lead/Partners:** James Wood as Facilitator / Chair
- **Start Date:** October

Objective #3 – Internal Re-Vision of Sustainability Structure, Planning & Actions

- **Strategy:** New Coordinator to lead the process of Sustainability collaborative visioning.
- **Activities:** Review Framework and Inventory of each department/office, review the “Organizational Issues” document, and the Sustainability Planning – Best Practices Document. Develop a DRAFT ISP.
- **Lead/Partners:** BOCC, Directors, New Coordinator as Facilitator / Chair
- **Start Date:** October / November
- **Completion Date:** ongoing

Objective #4 – Complete an Integrated Strategic Sustainability Plan (ISP)

- **Strategy:** Develop an ISP
- **Activities:** Meet monthly to develop ISP and facilitate dialogue, develop actions and present next steps and ISP plan
- **Lead/Partners:** BOCC, Directors, New Coordinator as Facilitator / Chair
- **Start Date:** November 2011
- **Completion Date:** January, 2012

Appendix

In the event that the County continues to broaden the understanding of Sustainability as a Triple Bottom Line approach, the County's current areas of Sustainability Focus or Themes could be remodeled. Here is an example a possible re-definition:

- **Energy and Climate:**
Conserve energy and use renewable energy sources towards the "New Economy" while addressing Climate Change
- **Building and Housing:**
Planning for sustainable and affordable structures and homes.
- **Ecosystems:**
Protect our Water, Land, and Air for the needs of all inhabitants.
- **Food and Agriculture:**
Ensure stable Food Systems
- **Society and Culture:**
Promote an active community involved in social, political & community activities.
- **Transportation:**
Maximize the efficiency (energy and use) and accessibility of our alternative Transportation systems.
- **Work and Livelihood:**
Reduce barriers for the local economy and create opportunities.
- **Zero Waste and Purchasing:**
Wise use of Natural and Economic resources (Reduce, Reuse, Recycle, and Compost).

Example: Definition of Sustainability

Sustainability has many different definitions. To some, it means creating and maintaining economic conditions that support high employment and income levels. Others feel that sustainability means using renewable or alternative energy and recycling and reusing more so that we can reduce our impact on the environment. In the social or community realm, sustainability might be viewed as the ability to provide basic services and support to disadvantaged populations and offer learning and cultural opportunities to the community.

Sustainability encompasses all of these ideas and requires that the balance between economic, environmental and social factors be considered when making decisions and acting on those decisions. A truly "sustainable" community provides for all the needs of its inhabitants (people, wildlife and habitats). This includes:

protecting open spaces, natural habitats and landscapes; ensuring access to basic human needs such as food, housing and health care; encouraging an active community involvement in social, political and community activities; and providing the every-day services that make daily tasks possible - services such as maintaining transportation routes and ensuring fair, accurate, democratic elections.

The consideration of these factors when evaluating sustainability is known as “Triple Bottom Line” (TBL) accounting which aims to protect *Environmental Integrity* while enabling *Economic Vitality* and ensuring *Social Equity* for ourselves today and for the future.

As the 1987 Report of the World Commission on Environment and Development (Brundtland Report) put it, “the environment is where we all live” and development “is what we all do to improve our lot within that abode.” The Commission sought ways in which development could be put on a sustainable path, defining “sustainable” to mean “meeting the needs of the present without compromising the ability of future generations to meet their own needs.”

What is often called a systems-wide sustainability plan, it requires a careful accounting of the numerous and diverse components that provide the foundations for the quality of our environmental, economic and societal condition. The list is large:

agricultural viability, forest health, energy production and use, resource consumption and preservation, decent housing, transportation, air and water quality, equitable educational and employment opportunities, meaningful public participation, and so on.

Therefore, achieving a sustainable future for any community, organization or culture entails comprehensive and long-term approaches to meeting the triple bottom line. On a more functional level, sustainable actions are those that protect and enhance our economic, environmental and social resources so that future generations will enjoy a quality of life equal to or greater than our own.

Example: Commitment & Mission to Sustainability

We believe that one mark of a leading Government is its commitment to sustainability and the practice of building sustainability into our Government policies, programs and services. Sustainability is a broad-based approach to meeting the County’s obligations to the global environment, our local economies, and to our society. Practicing sustainability internally, and creating programs and services for the public, enriches our capacity to undertake our County mission – to be the best in public service, providing the skills and values needed to thrive and to create a better world in the future.

Boulder County's leaders and employees have long held a commitment to being stewards of our land, environment and community. This commitment is reflected in the County's smart-growth policies, Comprehensive Plan, open space program and numerous programs that aim to protect and preserve our air, water and natural and human resources.

In 2005, the Boulder County Commissioners formalized the County's commitment to sustainability when they launched a Sustainability Initiative and approved the adoption of two resolutions addressing energy and zero-waste. The initiative involves the teamwork and expertise of employees from all County departments, working cooperatively within the County and with community and intergovernmental partners. A **mission** statement was also created to capture this commitment:

To ensure that Boulder County's operations and decision-making processes reflect our deep commitment to Environmental, Social, Economic sustainability and to build partnerships to help make the broader community more sustainable.

Boulder County is strongly committed to sustainability through implementing *Environmental Integrity*, *Economic Vitality*, and *Social Equity* into every aspect of our government programs and services, while understanding that sustainability is a long-term goal that seeks to balance these needs. We understand there might be short-term challenges associated with this effort, yet we know that there are great opportunities in the short-, medium-, and long-term for increasing economic, social and environmental benefits.